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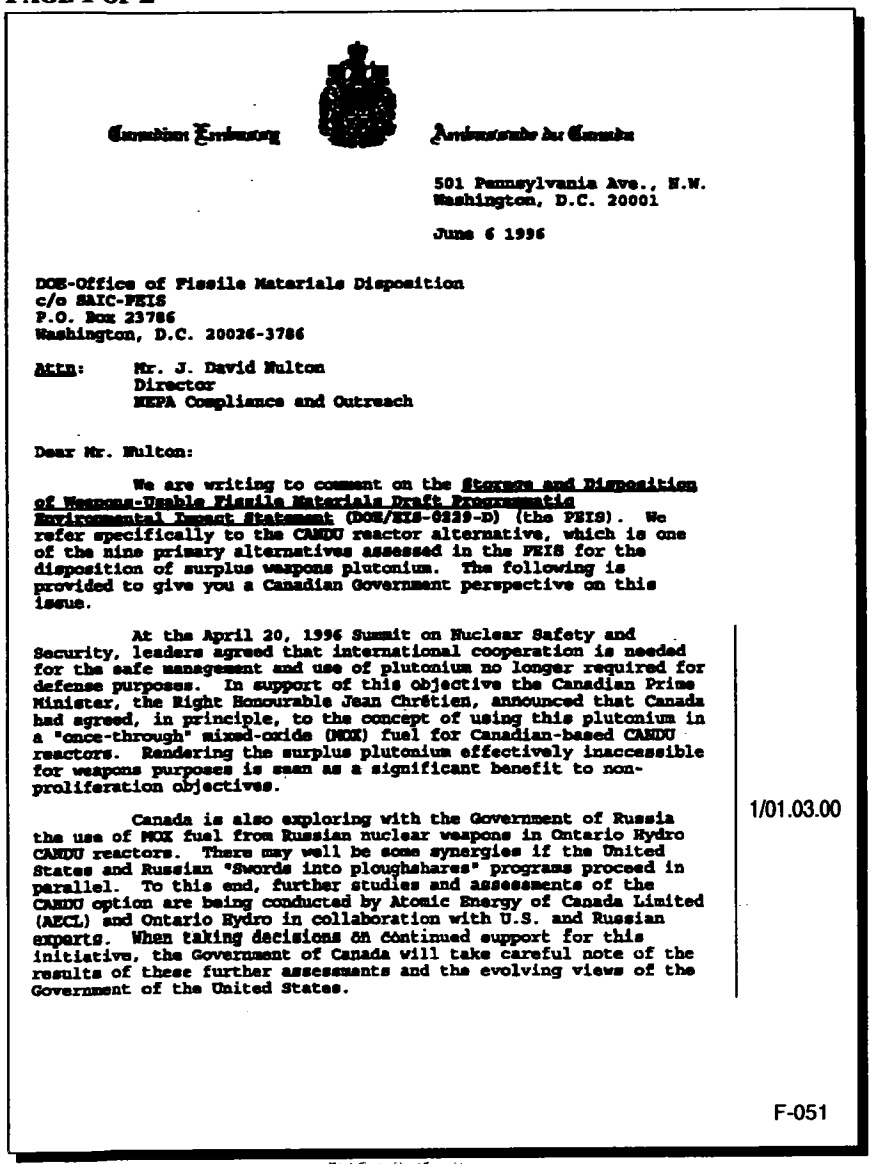

Canadian Embassy — Ambassade du Canada

501 Pennsylvania Ave., N.W.
Washington, D.C. 20001

June 6 1996

DOE-Office of Fissile Materials Disposition
c/o SAIC-PEIS
P.O. Box 23786
Washington, D.C. 20026-3786

Attn: Mr. J. David Hulton
Director
NEPA Compliance and Outreach

Dear Mr. Hulton:

We are writing to comment on the Storage and Disposition of Weapons-Usable Fissile Materials Draft Programmatic Environmental Impact Statement (DOE/EIS-0229-D) (the PEIS). We refer specifically to the CANDU reactor alternative, which is one of the nine primary alternatives assessed in the PEIS for the disposition of surplus weapons plutonium. The following is provided to give you a Canadian Government perspective on this issue.

At the April 20, 1996 Summit on Nuclear Safety and Security, leaders agreed that international cooperation is needed for the safe management and use of plutonium no longer required for defense purposes. In support of this objective the Canadian Prime Minister, the Right Honourable Jean Chrétien, announced that Canada had agreed, in principle, to the concept of using this plutonium in a "once-through" mixed-oxide (MOX) fuel for Canadian-based CANDU reactors. Rendering the surplus plutonium effectively inaccessible for weapons purposes is seen as a significant benefit to non-proliferation objectives.

Canada is also exploring with the Government of Russia the use of MOX fuel from Russian nuclear weapons in Ontario Hydro CANDU reactors. There may well be some synergies if the United States and Russian "Swords into ploughshares" programs proceed in parallel. To this end, further studies and assessments of the CANDU option are being conducted by Atomic Energy of Canada Limited (AECL) and Ontario Hydro in collaboration with U.S. and Russian experts. When taking decisions on continued support for this initiative, the Government of Canada will take careful note of the results of these further assessments and the evolving views of the Government of the United States.

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The Department of Energy appreciates the interest of the Canadian Government in this important international activity. DOE has worked closely with Canada to determine if such an alternative would work, and if so, how to best implement it.

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Canada has been a Party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) since it entered into force in 1970. Through the NPT, Canada made an international commitment not to develop or acquire nuclear weapons. Canada has a long history of initiating and supporting measures to strengthen the international non-proliferation regime. The CANDU option for reducing the accessibility of surplus weapons material -- whether of U.S. or Russian origin -- is entirely consistent with Canada's nuclear weapons non-proliferation policy. The full scope of Canada's nuclear program is covered by International Atomic Energy Agency (IAEA) safeguards. The IAEA has confirmed its ability to reliably safeguard CANDU reactors.

Canadian government policy does not exclude the use of plutonium as a reactor fuel, but the cost of producing plutonium makes it an uneconomic alternative to natural uranium for the CANDU reactor. Using MOX fuel from existing plutonium in a productive endeavour, such as the generation of electricity, could make economic sense for Canada. The CANDU MOX initiative is confined to the possible use of existing plutonium no longer required for defense purposes and is not related to a commercial plutonium fuel cycle.

MOX fuel fabrication using reactor grade plutonium is now a well known technology employed in Germany, France, Belgium, and Britain, and the use of weapons grade plutonium would be expected to provide an added advantage because of its lower radioactivity. Techniques for transporting and handling MOX fuel for the generation of electricity have been refined over the last 10 to 15 years. The composition of the spent fuel produced by the MOX fuel would be quite similar to that which is currently being produced using natural uranium. The storage of spent MOX fuel would be managed as an integral component of the Canadian spent fuel program. However, the amount of spent MOX fuel produced will be about 15% less than that from the use of natural uranium fuel to generate the same amount of electricity.

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cont.

If the DOE selects Ontario Hydro CANDU reactors for the plutonium disposition program, implementation would be subject to Canadian federal and provincial policies and regulations. These would include detailed, satisfactory assessments of health, safety and environmental aspects before issuance of an Atomic Energy Control Board (AECB) operating license to Ontario Hydro for the use of MOX fuel. We expect that the public reviews included in the AECB assessment process would focus on issues such as the safe and secure transportation of MOX fuel from the international boundary as well as matters specific to the reactor site.

Yours sincerely,

Brian Morrisey
Minister-Counsellor
Economic and Trade Policy

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